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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,953	03/19/2004	Tomohiko Yagyū	Y0647.0148	7165
32172 7590 03/07/2007 DICKSTEIN SHAPIRO LLP 1177 AVENUE OF THE AMERICAS (6TH AVENUE) NEW YORK, NY 10036-2714			EXAMINER ABDIN, SHAHEDA A	
			ART UNIT 2609	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/803,953

Applicant(s)

YAGYU, TOMOHIKO

Examiner

Shaheda A. Abdin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/02/2006 & 03/19/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 13 – 16 are rejected under 35 U.S.C 101 because the claimed invention is directed to non-statutory subject matter.

In claim 13, lines 1 and 2, a “machine-readable recording medium which records a program ” is being recited: however, the program would reasonably be interpreted by one of ordinary skill in the art as software, per se. This subject matter is not limited to that which falls within a statutory category of invention because it is limited to a process, machine, manufacture, or a composition of matter. Software is a function descriptive material and a function descriptive material is non-statutory subject matter.

In claim 13, lines 7-9, “the recording medium records a program for executing a process of autonomously advertising a usable wavelength” is being recited; however, the wavelength would reasonably be interpreted by one of ordinary skill in the art as signal, that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O’ Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in §101. This subject matter is not limited to that which falls within a statutory category of invention because it is limited to a process, machine, manufacture,

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or a composition of matter. Signal is a function descriptive material and a function descriptive material is non-statutory subject matter.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith et al.(US Pub No: 20050078659 A1).

As shown in figure 1, 2 and 3 smith et al. discloses an optical network.

(1) Regarding claim 1:

An optical network (2) which is formed by a plurality of optical network transmission apparatuses (source node, 10a and destination node 10b) and a plurality of transmission lines (6, optical links) that connect the optical network transmission apparatuses ([0024], fig.1), characterized in that

each optical network transmission apparatus (fig. 3) comprises:

advertisement means (30, label availability table) for autonomously advertising a usable wavelength in a transmission line connected to the apparatus ([0032], [0030], and fig. 3).

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collection means (32,label list) autonomously usable wavelength in a transmission line collecting that is advertised by another apparatus ([0024],[0031], [0032] fig. 1 and fig. 3).

(2) Regarding claim 2:

Wherein said advertisement means comprises notification means (selected label identifier) for notifying another apparatus adjacent apparatus of the usable wavelength the transmission line connected to the apparatus (service between source node SN and destination node DN) and usable wavelength in the transmission line that is collected by said collection means ([0032], fig. 3).

(3) Regarding claim 3:

Wherein the optical network transmission apparatus further comprises route calculation means for calculating a route of an optical path on the basis of the usable wavelength in the transmission line connected to the apparatus and the usable wavelength in the transmission that is collected by said collection means ([0032], [0035]), [0037], lines 7-19, and fig. 3).

(4) Regarding claim 4:

Wherein the optical network transmission apparatus comprises wavelength management means (cross-connect with controller 26) for managing the usable wavelength in the transmission line connected the apparatus ([0012], [0026], and fig. 2).

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wavelength update means (label availability table 28) for updating usable wavelength managed by said usable wavelength management means when an optical path is set in transmission line connected the apparatus ([0026], [0012], and fig. 2).

(5) Regarding claim 5:

An optical network transmission apparatus (source node and destination node) in which the apparatus and other adjacent apparatuses (4a, XC) are connected by transmission lines (6), characterized by comprising:

advertisement means (30, label availability table, fig. 3) for autonomously advertising usable wavelengths in the transmission lines connected to the apparatus ([0024], [0032], [0030], and fig. 3);

collection means (32, label list) for autonomously collecting usable wavelengths that are advertised by said other apparatuses ([0024], [0031], [0032], fig. 1 and fig. 3).

(6) Regarding claim 6:

Wherein said advertisement means comprises notification means for notifying said other apparatuses of the usable wavelengths in the transmission lines connected to the apparatus (service between source node SN and destination node DN) and the usable wavelengths in the transmission lines that are collected by said collection means ([0032], fig. 3).

(7) Regarding claim 7:

Further comprising route calculation means for calculating a route of an optical path on the basis of the usable wavelengths the transmission lines connected to the apparatus

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and the usable wavelengths in the transmission lines that are collected by said collection means ([0032], [0035]), [0037], lines 7-19, and fig. 3).

(8) Regarding claim 8:

Wavelength management means (cross-connect with controller 26) for managing the usable wavelength in the transmission lines connected to the apparatus;

wavelength update means for updating the usable wavelengths managed by said usable wavelength management means when an optical path is set in the transmission lines connected to the apparatus ([0012], [0026], and fig. 2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US Pub No: 20050078659 A1) in view of Tsushima et al. (US Patent No: 6970614 B2).

(9) Regarding claim 9 and 13 :

As shown in fig. 1, 2 and 3 Smith et al. discloses a method and system comprising: a distributed routing control method in an optical network which is formed by a plurality of optical network transmission apparatuses and a plurality of transmission

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lines that connect the optical network transmission apparatuses, characterized by comprising the step of causing each optical network transmission apparatus to autonomously advertise a usable wavelength in a transmission line connected to the apparatus ([0032], 0035]), [0037], lines 7-19, and fig. 3) and autonomously collect transmission line that usable wavelength in a is advertised by another apparatus ([0032], [0030], and fig. 3).

Smith et al. discloses all of the subject matter as described above except for a machine-readable recording medium which records a program distributed routing control method in an optical network.

However, Tsushima et al. in the same field of endeavor, discloses a machine-readable recording medium (190, control system includes a memory MEM 1910) which records a program distributed routing control method in an optical network (column 6, lines 58-67, column 7, and fig. 6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a machine-readable recording medium (190, control system includes a memory MEM 1910) which records a program distributed routing control method in an optical network as taught by Tsushima et al., in to the system of Smith et al et al., so that the optical network can be configured to locate a plurality of optical switching equipments and optical transmission routes so as to allow the optical signals processed in the equipment for adding the optical signals to pass through the different optical transmission routes and equipments respectively. The optical signal allowed to pass through the equipment is processed in the single

configuration portion of the equipment. In combination these features result in an optical transmitter that may be fabricated with relatively compact and low cost.

(10) Regarding claim 10 and 14:

Smith et al., further comprises wherein the advertisement step comprises the step of notifying another apparatus adjacent to the apparatus of the usable wavelength in the transmission line connected to the apparatus and the collected usable wavelength in the transmission line ([0024], [0032], [0030], and fig. 3);

(11) Regarding claim 11:

Smith et al., further comprising the step of calculating a route of an optical path on the basis of the usable wavelength in the transmission line connected to the apparatus and the collected usable wavelength the transmission line ([0032], [0035]), [0037], lines 7-19, and fig. 3)

(12) Regarding claim 12:

Smith et al., further comprising: the step of setting an optical path along a route obtained by route calculation([0032]);

the step of updating (reduced label list 34) the usable wavelength in the transmission line connected to the apparatus ([0033], fig. 3).

(15) Regarding claim 15:

Smith et al., further executes a process [0032] calculating a route of an optical path on the basis of the usable wavelength the transmission line connected to the apparatus and the collected usable wavelength the transmission line ([0032],0035]), [0037], lines 7-19, and fig. 3).

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(16) Regarding claim 16:

Smith et al., further executes process setting an optical path along a route obtained by route calculation, and process of updating the usable wavelength in the transmission line connected to the apparatus ([0034], and fig. 3).

Conclusion

7. Any inquiry concerning this communication should be directed to the examiner at (571) 270-1673 Monday- Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu, can be reached at (557) 272-3036.

Information regarding the status on an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9799 (IN USA OR CANADA) or 571-272-1000.

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Any response to this action should be mailed to:

Commissioner of patents and trademarks

Washington, D.C. 20231

Or fax to:

(703)872-9314 (for Technology Center 2600 only)

Shaheda Abdin

02/27/2007



**SHUWANG LIU
SUPERVISORY PATENT EXAMINER**

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